

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
ECHOSTAR SATELLITE CORPORATION	)	File Nos. 167-SAT-P/L-95; 168-SAT-P/L;
	)	54-SAT-AMEND-96
	)	
	)	Call Sign: S2179
	)	
Application for Modification	)	File Nos. SAT-MOD-20010608-00055;
of Authorization to Construct, Launch	)	SAT-AMD-20030127-00004
and Operate a Ka-band Satellite System	)	
in the Fixed-Satellite Service	)	

**ORDER AND AUTHORIZATION**

**Adopted: August 1, 2003**

**Released: August 1, 2003**

By the Chief, Satellite Division:

**I. INTRODUCTION**

1. By this Order, we grant the application, as amended, of EchoStar Satellite Corporation ("EchoStar") to modify its Ka-band authorization to allow launch and operation of a hybrid Ka- and Ku-band satellite at the 121° W.L. orbital location.<sup>1</sup> We are also modifying EchoStar's license to remove authority for inter-satellite links for its satellite at the 121° W.L. location. We take these actions to permit the imminent launch of the "EchoStar 9" satellite.

**II. BACKGROUND**

2. In May 1997, as part of the first Ka-band processing round, the International Bureau ("Bureau") authorized EchoStar to launch and operate a geostationary satellite orbit ("GSO") system to provide fixed-satellite service ("FSS") in the Ka-band.<sup>2</sup> EchoStar is authorized to operate one satellite at each of the 83° W.L. and 121° W.L. orbital locations using the 29.5-30.0 GHz frequency band for uplink transmissions and the 19.7-20.2 GHz band for downlink transmissions.<sup>3</sup>

3. In January 2001, the Bureau modified EchoStar's Ka-band authorization to include inter-

<sup>1</sup> The "Ka-band" or "28 GHz band" generally refers to the space-to-earth (downlink) frequencies at 17.7-20.2 GHz and the corresponding earth-to-space (uplink) frequencies at 27.5-30.0 GHz. The "Ku-band," as used in this Order, refers to downlink frequencies at 11.7-12.2 GHz and corresponding uplink frequencies at 14.0-14.5 GHz. EchoStar also holds an authorization to construct, launch and operate a Ku-band satellite at 121° W.L. See EchoStar Satellite Corp., *Memorandum Opinion and Order*, 11 FCC Rcd 20446 (1996). In a separate order released today, we grant EchoStar's request to modify its Ku-band license at 121° W.L. to permit hybrid operations. See EchoStar Satellite Corp., *Order and Authorization*, DA 03-2560 (Sat. Div. rel. August 1, 2003).

<sup>2</sup> See EchoStar Satellite Corp., *Order and Authorization*, DA 97-969, 13 FCC Rcd 5664 (Int'l Bur. 1997) ("*EchoStar Authorization Order*").

<sup>3</sup> See *EchoStar Authorization Order*, 13 FCC Rcd at 5664.

satellite links (“ISLs”) between the two satellites.<sup>4</sup> As part of the order granting the use of ISL spectrum, the Bureau also assigned implementation milestones for the construction, launch, and operation of EchoStar’s Ka-band satellite system. Under this implementation schedule, EchoStar was required to commence construction of its first satellite by January 2002 and to commence construction of its second satellite by January 2003.<sup>5</sup> Both satellites are to be launched and operational by June 25, 2005.<sup>6</sup>

4. In June 2001, EchoStar filed the present application to modify further its Ka-band authorization.<sup>7</sup> EchoStar’s Modification Application seeks authority to construct, launch and operate a single hybrid satellite (“EchoStar 9”) at the 121° W.L. orbital location in place of separate Ka- and Ku-band satellites at the same location.<sup>8</sup> EchoStar indicates that this modification constitutes a “first step” towards the realization of a fully-developed Ka- and Ku-band interactive satellite system and would serve the public interest by enabling the prompt provision of Ka-band broadband services, “local-into-local” broadcast services, and other video programming.<sup>9</sup> EchoStar’s Modification Application was placed on public notice.<sup>10</sup> Hughes Communications, Inc. (“Hughes”) commented on the Modification Application, and EchoStar responded to Hughes’ comments.<sup>11</sup> EchoStar amended its Modification Application in January 2003 by updating and revising certain information.<sup>12</sup> EchoStar’s Amendment was placed on public notice.<sup>13</sup> No comments were filed in response to the public notice.

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<sup>4</sup> See EchoStar Satellite Corp., *Order and Authorization*, DA 01-224, 16 FCC Rcd 2453 (Int’l Bur. 2001) (“*EchoStar ISL Order*”).

<sup>5</sup> See *EchoStar ISL Order* at 2459.

<sup>6</sup> See *id.*

<sup>7</sup> See EchoStar Satellite Corp., Application for Minor Modification of Authorization to Construct, Launch and Operate a Ka-band Satellite System in the Fixed-Satellite Service, File No. SAT-MOD-20010608-00055 (filed June 8, 2001) (“*Modification Application*”). The Bureau previously determined that EchoStar’s failure to comply with the Commission’s milestone requirements nullified EchoStar’s underlying Ka-band authorization and rendered the Modification Application moot. See EchoStar Satellite Corp., *Memorandum Opinion and Order*, DA 02-1534, 17 FCC Rcd 12780 (Int’l Bur. 2002). On reconsideration, the Bureau reinstated EchoStar’s Ka-band authorization to implement satellites at both the 83° W.L. and 121° W.L. orbital locations and revived EchoStar’s Modification Application. See EchoStar Satellite Corp., *Memorandum Opinion and Order*, DA 02-3085, 17 FCC Rcd 23489 (Int’l Bur. 2002).

<sup>8</sup> See Modification Application at 1.

<sup>9</sup> See *id.* at 8.

<sup>10</sup> Public Notice, Satellite Policy Branch Information: Applications Accepted for Filing, Report No. SPB-00074 (rel. June 29, 2001).

<sup>11</sup> Comments of Hughes Communications, Inc. (filed July 23, 2001) (“*Hughes Comments*”); Response of EchoStar Satellite Corp. (filed August 2, 2001). The Hughes Comments raised concerns about the relationship between EchoStar’s instant application and other proceedings. We have since addressed those concerns by taking action in the other proceedings. See Second Round Assignment of Geostationary Satellite Orbit Locations to Fixed-Satellite Service Space Stations in the Ka-band, *Order*, DA 01-1693, 16 FCC Rcd 14389 (Int’l Bur. 2001); EchoStar Satellite Corp., *Memorandum Opinion and Order*, DA 01-1684, 16 FCC Rcd 14300 (Int’l Bur. 2001), *pet. for recon. denied*, 17 FCC Rcd 8305. Accordingly, they will not be further addressed in this Order.

<sup>12</sup> EchoStar Satellite Corp., Amendment to Application for Minor Modification of Authorization to Construct, Launch, and Operate a Ka-band Satellite in the Fixed-Satellite Service, File No. SAT-AMD-20030127-00004 (filed Jan. 27, 2003) (“*Amendment*”). See also Letters to Marlene H. Dortch, Secretary, FCC, dated March 14, 2003; March 27, 2003; and April 4, 2003 (File No. SAT-MOD-20010608-00055 *et al.*).

<sup>13</sup> See Public Notice, Satellite Policy Branch Information: Applications Accepted for Filing, Report No. SAT-00145 (rel. April 10, 2003).

### III. DISCUSSION

#### A. Use of Hybrid Satellite

5. We find that granting EchoStar authority to operate a hybrid Ka-/Ku-band satellite at the 121° W.L. orbital location would serve the public interest. In past decisions, the Commission has recognized the cost efficiencies inherent in hybrid satellites and has attempted to accommodate hybrid satellites where possible.<sup>14</sup> In addition, the Commission specifically stated that it would permit Ka-band licensees such as EchoStar to build hybrid satellites where they are assigned to orbit locations that correspond to C- and Ku-band orbit locations at which the licensee is authorized, provided all other technical and service requirements are met and the licensee files an appropriate application to modify its underlying licenses.<sup>15</sup>

6. EchoStar's Modification Application states that the EchoStar 9 spacecraft will also carry a C-band payload in addition to EchoStar's Ka- and Ku-band payloads.<sup>16</sup> EchoStar states that Loral SpaceCom Corporation ("Loral") will operate this payload under the name "Telstar 13" pursuant to an authorization by Papua New Guinea ("PNG").<sup>17</sup> We observed in a prior decision that there appears to be nothing in the international Radio Regulations that would preclude such an arrangement.<sup>18</sup> We have exchanged letters with the PNG administration in order to ensure that there is a mutual understanding regarding the operation of the EchoStar 9 satellite. The understandings, and the factual background for these understandings, are provided as Annex A and are material considerations for the authorization contained in this Order.

#### B. Use of Spectrum Resources

7. EchoStar's Modification Application describes a Ka-band payload aboard EchoStar 9 consisting of eight Ka-band spot beams, four of which will transmit and receive Ka-band signals and four of which will be for uplink transmissions only (earth-to-space).<sup>19</sup> The geographic coverage area of the spot beams will include Alaska (uplink only), Arizona, California, Colorado/Wyoming, Hawaii (uplink only), Mexico City (uplink only), the New York metropolitan area (uplink only), and Washington state.<sup>20</sup>

8. EchoStar's Ka-band license authorizes uplink transmissions only in the 29.5-30.0 GHz frequency band and downlink transmissions only in the 19.7-20.2 GHz band. Although the Modification Application at one time requested authority to operate in an additional 500 megahertz of spectrum (28.35-

<sup>14</sup> See, e.g., Amendment of the Commission's Space Station Licensing Rules and Policies, *Report and Order*, FCC 03-102, 18 FCC Rcd 10760 at para. 145 (rel. May 19, 2003); Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Third Report and Order*, FCC 97-378, 12 FCC Rcd 22310, 22322 (1997) ("*Ka-Band Third Report and Order*").

<sup>15</sup> See *Ka-band Third Report and Order*, 12 FCC Rcd at 22322.

<sup>16</sup> See Modification Application at 2 n.2. For purposes of this Order, the "C-band" refers to frequencies in the 3700-4200 MHz and 5925-6425 MHz frequency bands.

<sup>17</sup> See Amendment at 7. Loral has filed a Petition for Declaratory Ruling with the Commission to add Telstar 13 to the Commission's Permitted Space Station List to serve the U.S. market in the C-band. See Loral SpaceCom Corp., Petition for Declaratory Ruling, File No. SAT-PDR-20020315-0025 (filed Mar. 15, 2002). This request will be addressed in a separate order.

<sup>18</sup> See AMSC Subsidiary Corporation, *Order and Authorization*, DA 98-493, 13 FCC Rcd 12316, 12320 (Int'l Bur. 1998) (U.S.-Canadian licensing for the MSAT-1 satellite).

<sup>19</sup> See Modification Application at 4.

<sup>20</sup> See *id.* at 5.

28.6 GHz and 29.25-29.5 GHz) for uplink operations and an additional 500 megahertz of spectrum (18.3-18.8 GHz) for downlink operations, the Bureau denied EchoStar's request for these additional Ka-band spectrum resources by a separate order.<sup>21</sup> EchoStar has amended its Modification Application to take into account the Bureau's denial.<sup>22</sup> As amended, EchoStar 9 requests authority to operate two 200 megahertz channels centered at 29.6 GHz and 29.9 GHz for uplink transmissions and at 19.8 GHz and 20.1 GHz for downlink transmissions.<sup>23</sup> EchoStar also states that 100 megahertz of spectrum at 29.7-29.8 GHz and at 19.9-20.0 GHz will be unused, functioning as "guard band" between channels.<sup>24</sup> Based on this amendment, we will grant EchoStar's modification request and authorize EchoStar to operate at 29.5-29.7 GHz and 29.8-30.0 GHz for uplink transmissions, and at 19.7-19.9 GHz and 20.0-20.2 GHz for downlink transmissions.

9. EchoStar also states that the EchoStar 9 spacecraft has been constructed with transponders capable of operating on Ka-band frequencies that are not covered by EchoStar's Ka-band license.<sup>25</sup> EchoStar explains that it had commenced construction of the EchoStar 9 spacecraft at the time that its request for an additional 500 megahertz of spectrum in each direction was still pending, and it wanted to be ready to accommodate additional spectrum resources if the Commission were to grant its request.<sup>26</sup> As discussed above, the Commission subsequently denied EchoStar's request for additional spectrum resources.<sup>27</sup> EchoStar acknowledges the denial of its request for additional spectrum resources and affirms that it will not operate transponders on frequencies for which it lacks authorization.<sup>28</sup> We require EchoStar to limit its transponder operations to frequencies for which it has received authorization to operate.

10. We also remind EchoStar and other applicants that Section 319 of the Communications Act requires prior authorization for the construction of a radio station.<sup>29</sup> Although we have adopted a rule waiving the requirement that such authorization be obtained prior to commencing construction, that waiver is expressly conditioned upon notification to the Commission in writing that construction is commencing at the applicant's own risk.<sup>30</sup> Failure to provide such notice in writing removes a precondition for the waiver of Section 319 and, therefore, may result in a violation of the Communications Act. EchoStar notified the Commission in its Modification Application and its 2001 and 2002 annual reports that it was proceeding with the construction of a hybrid Ku-/Ka-band satellite, and referenced pending applications detailing the technical parameters of the satellite.<sup>31</sup> EchoStar's statements in these documents do not provide explicit notice that EchoStar was proceeding "at its own risk," as required by Section 25.113(f). EchoStar subsequently affirmed in its amended Modification Application that

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<sup>21</sup> See EchoStar Satellite Corp., *Memorandum Opinion and Order*, DA 01-1684, 16 FCC Rcd 14300 (Int'l Bur. 2001), *pet. for recon. denied*, 17 FCC Rcd 8305.

<sup>22</sup> See Amendment at 4.

<sup>23</sup> See *id.*

<sup>24</sup> See *id.* at 6.

<sup>25</sup> See *id.* at 5.

<sup>26</sup> See *id.* at 4-6.

<sup>27</sup> See *supra* note 21 and accompanying text.

<sup>28</sup> See *id.* EchoStar indicates that it may request special temporary authority to use these frequencies so long as they are unused by their licensee. See *id.*

<sup>29</sup> 47 U.S.C. § 319.

<sup>30</sup> See 47 C.F.R. § 25.113(f).

<sup>31</sup> See Amendment at 5 n.5.

construction was at its own risk.<sup>32</sup> Because it is possible to piece together from EchoStar's filings the fact that it was proceeding with construction and the technical parameters of the satellite it was constructing, we will not refer this matter for enforcement. EchoStar and other applicants are advised, however, that a statement clearly referencing Section 25.113(f) and stating explicitly that construction has commenced and that such construction is "at the applicant's own risk" will avoid any questions as to the adequacy of the applicant's notification.

### **C. Use of Foreign Uplink**

11. EchoStar requests modification of its authorization, to the extent required, to allow it to uplink Spanish-language programming from an earth station in Mexico City, subject to receipt of all required authorizations from the Mexican administration.<sup>33</sup> EchoStar does not specify the frequency band to be used for this uplink. To the extent that EchoStar intends to use its authorized Ka-band uplink frequencies, *i.e.* 29.5-29.7 and 29.8-30.0 GHz, EchoStar does not need additional authorization from the Commission to uplink content from Mexico City earth stations. Such operations must be in accordance with the technical specifications set forth in EchoStar's application, as amended, and the provisions of Part 25 of the Commission's rules concerning space stations and are subject to the laws, regulations, rules, and licensing procedures of the Mexican administration and to successful coordination with adjacent satellite operators. If EchoStar wishes to utilize frequencies for uplinks from locations outside the United States on frequencies on which its space station is not authorized to operate, it must request such additional authority through a request to the Commission to modify its space station authorization.

### **D. Modification of ISL Authorization**

12. EchoStar's Modification Application and subsequent amendment appear to contemplate a change in EchoStar's use of inter-satellite links as part of its Ka-band system. EchoStar was previously granted the use of 1000 megahertz of spectrum in the 54.25-54.75 GHz and 54.85-55.35 GHz bands in order to provide ISLs between interconnected Ka-band satellites at the 83° and 121° W.L. orbital locations.<sup>34</sup> We found that the grant of 1000 megahertz of spectrum to EchoStar for ISLs was reasonable "given the nature of EchoStar's system and its proposed constellation deployment scenario."<sup>35</sup> EchoStar now states, however, that it no longer intends to include ISLs as part of the EchoStar 9 satellite to be located at 121° W.L. and that it is uncertain about its use of ISLs on future spacecraft.<sup>36</sup> We will treat EchoStar's statements regarding the lack of ISLs on the EchoStar 9 spacecraft as a request for modification of its authorization. Because this modification will not cause additional interference to authorized spectrum users and will make unused spectrum resources available, we grant the requested modification and will terminate EchoStar's authorization to utilize inter-satellite links at the 121° W.L. orbital location.

### **E. Milestone Compliance**

13. The EchoStar 9 satellite addressed in this Order is part of two-satellite system license that authorizes EchoStar to launch and operate a Ka-band satellite at each of the 83° W.L. and 121° W.L. orbital locations. Although EchoStar appears ready to launch the EchoStar 9 satellite ahead of the milestone schedule for its Ka-band satellite at 121° W.L., we have not confirmed whether EchoStar is in

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<sup>32</sup> See Amendment at 5.

<sup>33</sup> See Modification Application at 5 n.9.

<sup>34</sup> See *EchoStar ISL Order*, 16 FCC Rcd at 2457.

<sup>35</sup> See *id.*

<sup>36</sup> See Modification Application at 2 n.2 and 5 n.10.

compliance with the milestone schedule for its Ka-band satellite at 83° W.L.<sup>37</sup> In light of the imminent launch the EchoStar 9 satellite to the 121° W.L. orbital location,<sup>38</sup> we waive EchoStar's milestones for its Ka-band system on our own motion, insofar as any failure by EchoStar to meet the milestone requirements for its satellite at 83° W.L. would render EchoStar's authorization to operate the EchoStar 9 satellite at 121° W.L. null and void. This action is without prejudice to any other action on our part that may be appropriate regarding EchoStar's compliance with the milestones for its Ka-band satellite at 83° W.L.

#### F. Coordination with U.S. Government Systems

14. EchoStar's Ka-band authorization requires EchoStar to coordinate with U.S. Government systems operating in the 19.7-20.2 GHz bands in accordance with footnote US 334 to the Table of Frequency Allocations.<sup>39</sup> EchoStar's Ka-band authorization is conditioned on this coordination requirement.<sup>40</sup> Consequently, absent a coordination agreement pursuant to footnote US 334, EchoStar shall operate its Ka-band downlinks on a non-harmful interference basis with regards to operating U.S. Government systems in the 19.7-20.2 GHz bands and must terminate immediately its Ka-band downlink operations in the event that such operations cause harmful interference into operating U.S. Government systems. In addition, EchoStar must accept interference from such systems absent a coordination agreement pursuant to footnote US 334.

### IV. ORDERING CLAUSES

15. Accordingly, IT IS ORDERED THAT the application, as amended, of EchoStar Satellite Corporation, File Nos. SAT-MOD-20010608-00055 and SAT-AMD-20030127-00004, to modify its Ka-band authorization, 13 FCC Rcd 5664 (Int'l Bur. 1997) and 16 FCC Rcd 2453 (Int'l Bur. 2001) (File Nos. 167-SAT-P/L-95; 168-SAT-P/L; 54-SAT-AMEND-96; Call Sign S2179), IS GRANTED to the following extent:

(a) EchoStar Satellite Corporation's request IS GRANTED to operate EchoStar 9 as a hybrid Ka-/Ku-band satellite at the 121° W.L. orbital location in accordance with the terms, conditions, and technical specifications set forth in its application, as amended, and this Order.

(b) EchoStar Satellite Corporation's authority to operate inter-satellite links in the 54.25-54.75 GHz and 54.85-55.35 GHz bands at the 121° W.L. orbit location IS TERMINATED.

(c) EchoStar Satellite Corporation IS GRANTED authority to construct and launch a satellite at the 121° W.L. orbital location capable of operating in the following frequency bands: 18.3-18.8 GHz and 19.7-20.2 GHz bands (space-to-earth) and 28.35-28.6 GHz and 29.25-30.0 GHz bands (earth-to-space); 11.7-12.2 GHz (space-to-earth) and 14.0-14.5 GHz (earth-to-space); and 3700-4200 MHz (space-to-earth) and 5925-6425 MHz (earth-to-space).

(d) EchoStar Satellite Corporation IS GRANTED authority to operate a satellite at the 121° W.L. orbital location in the 29.5-29.7 GHz and 29.8-30.0 GHz bands for uplink (earth-to-space) transmissions, and in the 19.7-19.9 GHz and 20.0-20.2 GHz bands for downlink (space-to-earth) transmissions

<sup>37</sup> The first milestone for EchoStar's Ka-band satellite at 83° W.L. is for commencement of satellite construction by January 2003. *See supra*, footnote 5.

<sup>38</sup> EchoStar's counsel has indicated that the planned launch date of the EchoStar 9 spacecraft is August 7, 2003.

<sup>39</sup> *See EchoStar Authorization Order*, 13 FCC Rcd at 5670. *See also* 47 C.F.R. § 2.106.

<sup>40</sup> *See EchoStar Authorization Order*, 13 FCC Rcd at 5675.

16. IT IS FURTHER ORDERED that EchoStar Satellite Corporation's milestones for its Ka-band system ARE WAIVED, insofar as any failure by EchoStar to meet the milestone requirements for its satellite at 83° W.L. would render EchoStar's authorization to operate the EchoStar 9 satellite at 121° W.L. null and void.

17. IT IS FURTHER ORDERED that EchoStar Satellite Corporation's operations at the 121° W.L. orbital location SHALL BE coordinated with adjacent satellites concerning any operational parameters that are different from those previously coordinated for the aforementioned orbit location.

18. IT IS FURTHER ORDERED that EchoStar Satellite Corporation's operation at the 121° W.L. orbital location SHALL BE in compliance with all international coordination agreements reached regarding the aforementioned orbital location.

19. IT IS FURTHER ORDERED that EchoStar Satellite Corp. is obliged to comply with the applicable laws, regulations, rules, and licensing procedures in those countries it proposes to serve.

20. IT IS FURTHER ORDERED that EchoStar Satellite Corporation will prepare any necessary submissions to the International Telecommunication Union (ITU) and to affected administrations for the completion of the appropriate coordination and notification obligations for these space stations in accordance with the ITU Radio Regulations. We also remind all licensees that no protection from interference caused by radio stations authorized by other Administrations is guaranteed unless coordination procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other Administrations, 47 C.F.R. § 25.111(b).

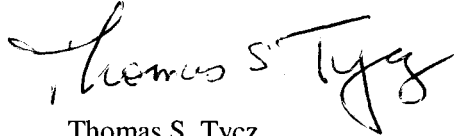
21. IT IS FURTHER ORDERED that EchoStar Satellite Corporation must coordinate all of its Ka-band downlink operations with the U.S. Government systems in accordance with footnote US 334 to the Table of Frequency Allocations, 47 C.F.R. § 2.106.

22. Absent a coordination agreement pursuant to footnote US 334 to the Table of Frequency Allocations, IT IS FURTHER ORDERED that EchoStar Satellite Corporation SHALL OPERATE its Ka-band downlinks on a non-harmful interference basis with regards to operating U.S. Government systems in the 19.7-20.2 GHz bands, SHALL TERMINATE immediately its Ka-band downlink operations in the event that such operations cause harmful interference into operating U.S. Government systems, and MUST ACCEPT interference from such systems.

23. IT IS FURTHER ORDERED that EchoStar Satellite Corporation is afforded 30 days from the date of the release of this order and authorization to decline this authorization as conditioned. Failure to respond within that period will constitute formal acceptance of the authorization as conditioned.

24. This Order is issued pursuant to Section 0.261 of the Commission's rules on delegations of authority, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of public notice of this Order (see 47 C.F.R. § 12.4(b)(2)).

## FEDERAL COMMUNICATIONS COMMISSION

A handwritten signature in black ink, appearing to read "Thomas S. Tycz". The signature is fluid and cursive, with the first name "Thomas" and last name "Tycz" clearly distinguishable.

Thomas S. Tycz  
Chief, Satellite Division



**ANNEX A**



INTERNATIONAL BUREAU

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

July 25, 2003

Charles Punaha  
Director General  
Papua New Guinea Radiocommunications and  
Telecommunications Technical Authority  
Frangipani Street, Hohola  
P.O. Box 8444  
Boroko, NCD  
Papua New Guinea

Dear Mr. Punaha:

This letter confirms the understandings of the U.S. Federal Communications Commission (FCC) and the Papua New Guinea Radiocommunications and Telecommunications Technical Authority (PANGTEL) concerning the operations of a Fixed-Satellite Service (FSS) satellite (EchoStar 9 / Telstar 13) at the 121° W.L. orbital location by EchoStar Satellite Corp. (EchoStar), a U.S. space segment licensee, and Loral SpaceCom Corp. d/b/a Loral Skynet (Loral), a U.S. company that would operate at that orbital location pursuant to an authorization by Papua New Guinea.<sup>1</sup>

**Background**

EchoStar is authorized by the FCC to operate at the 121° W.L. orbital location in the Ku- and Ka-bands pursuant to the USASAT-23G and USASAT-31G filings with the International Telecommunication Union (ITU). The FCC issued authorizations for these operations in 1996 and 1997 respectively.<sup>2</sup> EchoStar is seeking FCC authorization to modify its Ku- and Ka-band authorizations to include permission to operate a hybrid satellite, to be called "EchoStar 9," at the 121° W.L. orbital location. That satellite would

<sup>1</sup> Loral has filed a Petition for Declaratory Ruling with the FCC in order to place the Telstar 13 payload on the FCC's Permitted Space Station List of non-U.S.-licensed satellites that can communicate with earth stations in the United States without individual licensing by the FCC. See Loral SpaceCom Corp. Petition for Declaratory Ruling for Inclusion of Telstar 13 C-Band Satellite at 121° W.L. on the Permitted Space Station List, File No. SAT-PDR-20020315-00025 (filed March 15, 2002).

<sup>2</sup> See *In the Matter of EchoStar Satellite Corp. Application for Authority to Construct, Launch, and Operate Space Stations in the Domestic Fixed-Satellite Service*, Memorandum Opinion and Order, 11 FCC Red 20446 (1996); *In the Matter of EchoStar Satellite Corp. Application for Authority to Construct, Launch, and Operate a Ka-Band Satellite System in the Fixed-Satellite Service*, Order and Authorization, 13 FCC Red 5664 (Int'l Bur. 1997).

include Loral's C-band payload, to be called "Telstar 13." The ownership interests in EchoStar are included as part of its above-mentioned applications for FCC authorization.<sup>3</sup>

Loral is authorized by PANGTEL to operate a C-band payload at the 121° W.L. orbital location pursuant to Papua New Guinea's Pacstar-4L filing with the ITU. Loral's authorization from Papua New Guinea is contained solely in a contractual agreement, which was entered into in 1996 by Loral and PANGTEL's predecessor in interest. Under the agreement, Loral agreed to compensate Papua New Guinea in return for use of the orbit-spectrum resources identified in the Pacstar-4L filing. Neither PANGTEL nor Papua New Guinea nor any Papua New Guinea corporation or entity has any ownership interest in the Telstar 13 payload or in the EchoStar 9 satellite.

EchoStar (through its affiliate, EchoStar Orbital Corporation) and Loral have entered into an agreement by which each party will exclusively own and operate its respective payload(s) aboard the satellite. The agreement stipulates that elements of the satellite that are common to and/or shared by EchoStar and Loral shall be jointly owned by the parties, with EchoStar owning a majority interest in such elements. Pursuant to the agreement, Loral and EchoStar shall have sole final decision-making authority with respect to all matters that solely and exclusively impact their respective payloads. Under the agreement, matters that involve common elements or otherwise impact the payloads of both parties shall be made by mutual agreement by EchoStar and Loral, and disputes arising under the agreement that cannot be settled by the parties shall be determined by binding arbitration. The agreement also details steps to be taken in the event the spacecraft suffers a loss of primary power that impacts both EchoStar's and Loral's payloads.

While in general EchoStar and Loral must mutually agree on all matters involving the spacecraft's common elements, the agreement also provides certain unilateral rights. Thus, in cooperation and consultation with the other party, either EchoStar or Loral may cause a move of the satellite by delivering a substitute satellite to the 121° W.L. orbital location. Each party may also choose to sell its ownership interest in the satellite, or to turn off its payload and abandon its usage. The agreement also provides that, if a substitute satellite is employed, the party providing the substitute satellite will transfer the other party's traffic from EchoStar 9 to the substitute satellite and will cause the satellite to vacate the 121° W.L. orbital location.

Pursuant to the agreement, Telemetry, Tracking and Control (TT&C) of the satellite shall be provided by Loral to EchoStar. In-orbit testing for EchoStar's Ka- and Ku-band payloads will be conducted from EchoStar's uplink facility in Cheyenne, Wyoming, or Gilbert, Arizona. In-orbit testing for Loral's C-band payload will be conducted from Loral's facility in Hawley, Pennsylvania. In-orbit testing for common elements will be performed at a facility to be mutually agreed upon by EchoStar and Loral.

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<sup>3</sup> See footnote 2, *supra*.

EchoStar and Loral agree under the agreement to comply with all U.S. export control regulations and all other laws and regulations which apply to the agreement.

### **Understandings**

**Licensing Administrations.** For purposes of Regulation 18.1 of the ITU Radio Regulations, PANGTEL is the licensing Administration for the C-band payload aboard the satellite insofar as it operates at the 121° W.L. orbital location, and the FCC is the licensing Administration for the Ku- and Ka-band payloads aboard the satellite. The FCC will be responsible for ensuring licensing of any operations of the satellite not at the 121° W.L. orbital location. PANGTEL and the FCC shall consult with each other prior to any transfer of their respective licensing authority to a third Administration.

**Compliance with ITU.** PANGTEL and the Papua New Guinea Administration will have responsibility for compliance with the ITU Radio Regulations (in particular the coordination and notification procedures) for the Papua New Guinea licensee's operations at 121° W.L. The FCC and the U.S. Administration will have responsibility for such compliance with the ITU Radio Regulations for the U.S. licensee's operations at 121° W.L.

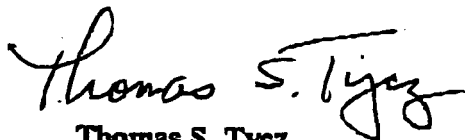
**Control Over Physical Operations.** The U.S. licensee shall maintain control over the physical operation of the satellite, including TT&C, from an earth station located in the United States and shall comply with any U.S. statute or FCC rule, regulation, or order – including, but not limited to, any direction by the U.S. President under Section 706(c) of the Communications Act of 1934, as amended, 47 U.S.C. § 706(c) – without the need for consultation with, or approval from, PANGTEL or the Papua New Guinea Administration. The FCC shall notify PANGTEL or the Papua New Guinea Administration as soon as practicable of any such rule, regulation, or order it issues, or intends to issue, to the U.S. licensee regarding the physical operations of the satellite.

**In-Orbit Anomalies.** In the event of in-orbit anomalies rendering the satellite no longer suitable for operation at the 121° W.L. orbital location, the U.S. licensee shall comply with any FCC rule, regulation, or order without the need for consultation with, or approval from, PANGTEL or the Papua New Guinea Administration. The FCC shall notify PANGTEL or the Papua New Guinea Administration as soon as practicable of any such rule, regulation, or order it issues, or intends to issue, to the U.S. licensee in the event of in-orbit anomalies.

**End-of-Life Maneuvers/Mitigation of Orbital Debris.** The U.S. licensee shall comply with any FCC rules, regulations, or orders regarding end-of-life maneuvers or other measures to mitigate orbital debris, without the need for consultation with, or approval from, PANGTEL or the Papua New Guinea Administration. The FCC shall notify PANGTEL or the Papua New Guinea Administration as soon as practicable of any such rule, regulation, or order it issues, or intends to issue, to the U.S. licensee regarding end-of-life maneuvers or other measures to mitigate orbital debris.

***U.N. Registration.*** Based on the current launch plans for the satellite, the Government of the United States of America will register the EchoStar 9/Telstar 13 spacecraft with the Secretary-General of the United Nations, pursuant to the 1976 U.N. Convention on Registration of Objects Launched into Outer Space.

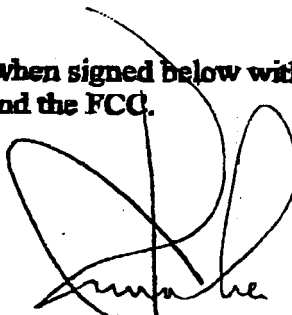
Sincerely,



Thomas S. Tycz  
Chief  
Satellite Division

7/25/03

If you agree to the above, this letter when signed below with your signature constitutes an understanding between PANGTEL and the FCC.



Charles Punaia  
Director General  
Papua New Guinea Radiocommunications and  
Telecommunications Technical Authority

7/30/2003.